

## REPORT ON STANDARDIZATION OF MICROCHEMICAL METHODS

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Microchemical methods for ethoxyl and methoxyl groups and for phosphorus were studied during the past year. The study of the methoxyl-ethoxyl determination reported last year showed that further improvement was needed in the method or apparatus, or both.

Both improvements have been made during the year. The Committee on Microchemical Apparatus of the Analytical Division of the American Chemical Society has modified the apparatus used last year to provide better scrubbing of the gas stream, to prevent suck-back of the scrubbing solution, and to increase the ease of replacing this solution. The Associate Referee has modified the procedure by requiring the use of a more efficient scrubbing solution and adding a precaution with respect to the hydriodic acid. The results obtained with the modified method and apparatus were markedly better than those obtained previously, and the method is now worthy of adoption as first action.

The other study was a preliminary one for the purpose of ascertaining which microchemical methods for phosphorus are most commonly in use today and whether or not there are any significant differences in the accuracy and precision obtained by the different methods used.

### RECOMMENDATIONS

It is recommended†—

- (1) That the method employed in this year's study of the methoxyl and ethoxyl group determination be adopted as first action.
- (2) That the study of microchemical methods for phosphorus be continued.
- (3) That studies of micromethods for the acetyl group be continued.
- (4) That studies of microchemical methods for iodine be initiated.

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† For report of Subcommittee C and action of the Association, see *This Journal* 39, 74 (1956).